WHAT IS CLAIMED IS:

1. A dual band antenna comprising:

a grounding conductor;

a dielectric substrate connected with the grounding conductor, the dielectric substrate having a first surface that is perpendicular to the grounding conductor and a second surface that is parallel with the first surface; and

a radiating conductor containing a conductive pattern that is provided on the first surface of the dielectric substrate,

wherein the radiating conductor contains:

a first meandering portion that contains a first meander shape to which high-frequency power is supplied,

a second meandering portion that contains a second meander shape connected with an end of the first meandering portion, the second meander shape having a smaller pitch than that of the first meandering shape, and

a capacitive conductor portion that is connected with the second meandering portion, and

the first meandering portion and the capacitive conductor portion are opposed close enough in at least one location to form a capacitive coupling portion.

2. The dual band antenna according to claim 1, wherein the capacitive conductor portion is provided on both the first and second surfaces of the dielectric substrate, and the capacitive conductor portions on the first and second

surfaces are electrically connected via through holes.

3. The dual band antenna according to claim 1, wherein the first and second meandering portions extend substantially in perpendicular directions.

4. The dual band antenna according to claim 1, wherein the capacitive conductor comprises a main body and an extending portion that extends from the main body, and the second meandering portion comprises a meanderline section connected with the first meandering portion and a straight line section connected with the extending portion of the capacitive conductor and extending substantially parallel with a direction in which the meanderline section extends.

5. The dual band antenna according to claim 4, wherein the extending portion of the capacitive conductor opposes the first meandering portion to form the capacitive coupling portion.

6. The dual band antenna according to claim 4, wherein the first and second meandering portions extend substantially in perpendicular directions and a length of the second meandering portion is substantially equal to a height of the first meandering portion.

7. The dual band antenna according to claim 1, wherein a width of conductive traces that form the first and second

meandering portions are substantially equal.

8. A dual band antenna comprising:

a grounding conductor;

a first dielectric substrate attached to the grounding conductor, the first dielectric substrate having a first surface that is perpendicular to the grounding conductor and a second surface that is parallel with the first surface;

a first radiating conductor containing a meander conductive pattern provided on the first surface of the first dielectric substrate;

a second radiating conductor provided on the first surface of the first dielectric substrate in a branched conductive pattern that is branched from the first radiating conductor and has a discontinuous capacitive coupling portion; and

a first capacitive conductor disposed such that the first capacitive conductor is substantially parallel to the grounding conductor and to which at least the first radiating conductor is connected.

9. The dual band antenna according to claim 8, further comprising:

a second dielectric substrate attached to the first dielectric substrate such that the second dielectric substrate is substantially parallel to the grounding conductor; and

a first conductive layer provided on a surface of the

second dielectric substrate that serves as the first capacitive conductor.

10. The dual band antenna according to claim 9, wherein:

a second conductive layer forming a second capacitive conductor is provided on the surface of the second dielectric substrate, the first and second conductive layers are electrically isolated from each other on the surface of the second dielectric substrate, and

an upper end of the second radiating conductor is connected to the second capacitive conductor.

11. The dual band antenna according to claim 10, wherein the first and second capacitive conductors have different areas.

12. The dual band antenna according to claim 8, wherein a metal conductor plate installed on the first dielectric substrate serves as the first capacitive conductor.

13. The dual band antenna according to claim 8, wherein:

the second radiating conductor is provided on both the first and second surfaces of the first dielectric substrate, and

portions of the second radiating conductor disposed on the first and second surfaces of the first dielectric

substrate and that oppose each other with the first dielectric substrate disposed therebetween form the capacitive coupling portion.

14. The dual band antenna according to claim 8, wherein the branched conductive pattern of the second radiating conductor is provided on both the first and second surfaces of the first dielectric substrate, and the branched conductive pattern on the first surface of the first dielectric substrate overlaps the branched conductive pattern on the second surface of the first dielectric substrate.

15. The dual band antenna according to claim 8, wherein the first radiating conductor contains first and second meandering sections of different widths and different pitches.

16. The dual band antenna according to claim 15, wherein the branched conductive pattern of the second radiating conductor is a straight conductive pattern that extends from a connection between the first and second meandering sections.

17. The dual band antenna according to claim 16, wherein the branched conductive pattern of the second radiating conductor extends in an area adjacent to the second meandering section of the first radiating conductor

such that a height of the second meandering section, a width of the branched conductive pattern and a distance between the second meandering section and the branched conductive pattern together are substantially equal to a height of the first meandering section of the first radiating conductor.

18. The dual band antenna according to claim 8, further comprising a power supply configured to supply high-frequency power to a lower end of the first radiating conductor.

19. A method of decreasing a volume of a dual band antenna, the method comprising:

providing a first dielectric substrate;

affixing the first dielectric substrate to a grounding conductor;

providing a first radiating conductor formed of a meander conductive pattern provided on a first surface of the first dielectric substrate;

providing a second radiating conductor formed of a branched conductive pattern that is branched from the first radiating conductor on the first surface of the first dielectric substrate, the branched conductive pattern having a discontinuous capacitive coupling portion; and

connecting a first capacitive conductor to the first dielectric substrate; and

connecting the first capacitive conductor and the first radiating conductor.

20. The method according to claim 19, further comprising:

attaching a second dielectric substrate to the first dielectric substrate such that the second dielectric substrate is substantially parallel to the grounding conductor; and

providing a first conductive layer on a surface of the second dielectric substrate that serves as the first capacitive conductor.

21. The method according to claim 20, further comprising:

providing a second conductive layer on the surface of the second dielectric substrate such that the first and second conductive layers are electrically isolated from each other on the surface of the second dielectric substrate, the second conductive layer forming a second capacitive conductor, and

connecting an upper end of the second radiating conductor to the second capacitive conductor.

22. The method according to claim 19, further comprising affixing a metal conductor plate to the first dielectric substrate to serve as the first capacitive conductor.

23. The method according to claim 19, further

comprising:

providing the second radiating conductor on both the first and second surfaces of the first dielectric substrate, and

forming the capacitive coupling portion using sections of the second radiating conductor disposed on the first and second surfaces of the first dielectric substrate that oppose each other with the first dielectric substrate disposed therebetween.

24. The method according to claim 19, further comprising forming the first radiating conductor to contain first and second meandering sections of different widths and different pitches.

25. The method according to claim 24, further comprising forming the branched conductive pattern of the second radiating conductor as a straight conductive pattern that extends from a connection between the first and second meandering sections.

26. The method according to claim 25, further comprising forming the branched conductive pattern of the second radiating conductor to extend in an area adjacent to the second meandering section of the first radiating conductor such that a height of the second meandering section, a width of the branched conductive pattern and a distance between the second meandering section and the

branched conductive pattern together are substantially equal to a height of the first meandering section of the first radiating conductor.

27. The method according to claim 19, further comprising connecting a high-frequency power supply to a lower end of the first radiating conductor.